



ICAO

International Civil Aviation Organization

WORKING PAPER

Twenty-fourth Meeting of the Meteorology Sub-group (MET SG/24) of the Asia and Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG)

Web-conference, 17 – 20 June 2019

Agenda Item 2: Review outcomes from previous meetings

REVIEW OUTCOMES FROM MET/S WG/10

(Presented by Chairman of MET/S WG)

SUMMARY

This paper presents the outcomes of the MET/S WG/10 meeting, including developments in SIGMET co-ordination among the States in the region, SIGMET deficiencies, capacity building, and update of the SIGMET Guide.

1. INTRODUCTION

1.1 The ICAO Asia and Pacific (APAC) Regional Office hosted the Eighteenth Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/18) and Tenth Meeting of the Meteorological Services Working Group (MET/S WG/10), conjointly, by web-conference from 27 to 31 July 2020. The meeting was attended by 136 participants from 24 States and Administrations. Mr. Chan Pak Wai, Assistant Director, Hong Kong Observatory, Hong Kong, China, presided as Chair of the meeting and Mr. Peter Dunda, Regional Officer Aeronautical Meteorology, ICAO Asia and Pacific Office, acted as Secretary.

1.2 To assist the MET SG in its work programme to improve the quality of meteorological services, in particular, observations, forecasts, advisories and warnings; including facilitating implementation of the international airways volcano watch (IAVW) and international tropical cyclone warning system, the conjoint MET/IE WG/18 and MET/S WG/10 adopted the following agenda:

Agenda Item 1: Opening of the meeting and organizational matters

Agenda Item 2: Outcomes from MET/IE WG related meetings

Agenda Item 3: Monitoring of meteorological information exchange

Agenda Item 4: Guidance material related to meteorological information exchange

Agenda Item 5: Future work programme and terms of reference of MET/IE WG

Agenda Item 6: Regional tests of Advisory and SIGMET services

Agenda Item 7: Outcomes from MET/S WG related meetings

Agenda Item 2

16-20/11/20

Agenda Item 8: Monitoring of meteorological services

Agenda Item 9: Deficiencies in the provision of meteorological services

Agenda Item 10: Guidance and education related to the provision of meteorological services

Agenda Item 11: Future work programme and terms of reference of MET/S WG

1.3 MET/S WG/10 reviewed and updated its work programme, including actions completed since the previous meeting of the group (i.e., MET/S WG/9). This paper presents a summary of the outcomes from MET/S WG/10 for further review and action as necessary by MET SG/24.

2. DISCUSSION

2.1 A copy of the MET/S WG/10 meeting report, and all related meeting documentation, is available at the following website: <https://www.icao.int/APAC/Meetings/Pages/2020-MET-IE-WG18.aspx>

Activities of the PIAWS Panel Task Team (PIAWS Panel TT)

2.2 The Pacific Islands Aviation Weather Services (PIAWS) Panel, and PIAWS Task Team, is assisting Pacific States in resolving (APANPIRG) air navigation deficiencies and in meeting the 5 November 2020 applicability of the Standards for IWXXM format. As an outcome of its assistance work related to deficiencies in the provision of volcanic ash information, the Task Team identified an absence of designated State volcano observatories in some APAC States that have active or potentially active volcanoes.

2.3 The MET/S WG will designate an ad-hoc group consisting of the Secretariat and members from the VAACs and RODBs to identify the APAC States with active or potential active volcanoes, which do not have a designated State volcano observatory listed in the APAC ANP, Vol I, Table MET I-1. The Secretariat will then conduct the necessary coordination to facilitate the States concerned with the designation of a State volcano observatory and listing it in the APAC ANP.

International coordination and collaboration for harmonized SIGMET information

2.4 A trial coordination of SIGMET information concerning thunderstorms between the MWOs of Indonesia and Sri Lanka, and supported by Hong Kong, China, from 2 December 2019 to 1 June 2020. Noting the positive outcomes from the project, the participants agreed to transition to semi-operational status. Hong Kong, China will continue to support the SSEA SIGMET coordination project and offers to support other MWOs within the APAC Region that are interested in coordination of SIGMET information in compliance with Amendment 79 to Annex 3.

2.5 There was also a “table-top” exercise on coordination of SIGMET information concerning tropical cyclone between four MWOs in China, Hong Kong China, Philippines and VATM.

2.6 Coordination of SIGMET information concerning thunderstorms between MWOs in Cambodia, China, Hong Kong China and Vietnam in 2019 included a total number of three-hundred and forty-five (345) cases in which 80% percent of cases the MWOs concerned were able to reach a “consensus” on the coordination of SIGMET within 15-minutes.

2.7 The participants of the ongoing scheme known as Collaborative SIGMET Issuance (CSI), conducted by Japan, Lao PDR, Myanmar, Philippines, Thailand and Vietnam, continued with their recent activities, especially the CSI Workshop held in December 2019. The CSI participants identified the need by MWOs of special air-reports as an important source of information to support the issuance of SIGMET information concerning turbulence and icing. Furthermore, the CSI member States had a joint session with Operational SIGMET coordination project members and other relevant members and agreed to conduct the three one-to-one coordination trials using the Japan Meteorological Agency (JMA) web tool.

Removal of deficiencies from the APANPIRG open list

2.8 The PIAWS Panel is currently assisting the Pacific Island States, including Solomon Islands and Tonga, with developing and implementing corrective action for the resolution of air navigation deficiencies concerning aerodrome meteorological observations or reports, MWO and/or SIGMET information, volcanic ash/activity information and WAFS forecasts and/or flight briefings.

2.9 Tonga, in collaboration with VAAC Wellington, is utilizing the volcanic ash exercises to support the resolution of Tonga's air navigation deficiencies concerning volcanic information.

2.10 Australia is supporting Papua New Guinea to uplift its capacity to provide the meteorological observations and forecasts necessary to support Papua New Guinea's aviation weather services provision. The support extends to areas including liaison with aviation stakeholders, automated meteorological observation systems, access to numerical weather prediction systems, volcanic ash observations and the competencies, education and training of meteorological personnel.

APAC Regional SIGMET Guide

2.11 The designated ad-hoc group for reviewing and updating the APAC Regional SIGMET Guide, consisting of Australia (rapporteur), New Zealand, Hong Kong China and Japan had drafted proposed updates to the SIGMET Guide to align with Amendment 79 to Annex 3, fix some minor typographical errors and improve and replace the appended "SIGMET test" procedure. The draft is to be approved by MET SG for use by States and publishing on the ICAO APAC Office website.

Any other business

2.12 The Meteorology Subgroup, at its next meeting (MET SG/24), will further consider and decide the schedule for the future meetings of MET/S WG, which have previously convened on an annual basis during March.

3. CONCLUSION

3.1 The MET/S WG works towards the resolution of SIGMET deficiency in the region, including keeping in view the development of SIGMET co-ordination effort and monitoring the issuance of SIGMET, especially for those States with deficiencies. Technical support would be rendered to the Pacific Island States.

Agenda Item 2

16-20/11/20

4. ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) Note the information in this paper; and
- b) Propose further updates to the terms of reference and work programme of MET/S WG, as necessary.

MET/S WG – TERMS OF REFERENCE AND WORK PROGRAMME**ASIA/PACIFIC METEOROLOGICAL SERVICES WORKING GROUP (MET/S WG)****TERMS OF REFERENCE**

1. MEMBERSHIP
The MET/S WG comprises experts provided by States, International Organizations and/or bodies and Organizations having experience in the provision of aeronautical meteorological services.

State or Org./Name	Title/Organization	Contact information
AUSTRALIA Ms. Elizabeth HEBA	Manager, Regional Aviation Weather Services (WA and SA), Aviation Quality Assurance Lead Australian Bureau of Meteorology, P.O. Box 1370, West Perth, WA, 6005, GPO Box 1289, Melbourne VIC 3001, AUSTRALIA	Tel: +61 (8) 9263 2266 +61 3 9669 4313 E-mail: e.heba@bom.gov.au elizabeth.heba@bom.gov.au
AUSTRALIA Mr. Domenic PANUCCIO	Senior Aviation Meteorologist Australian Bureau of Meteorology GPO Box 1289, Melbourne VIC 3001, AUSTRALIA	Tel: +61 3 9669 4379 E-mail: domenic.panuccio@bom.gov.au
CHINA Mr. WANG Fengyun	Engineer, MET Office, Air Traffic Management Bureau of East China Shanghai 200335, CHINA	Ph: +86 (21) 2232 7505 Fax: +86 (21) 6268 3667 Em: wangfy@atmb.cn
CHINA Mr. Ji Pengfei	Meteorologist, Meteorology Division Air Traffic Management Bureau 12 East Sanhuan Road Middle Chaoyang District Beijing 100022 PEOPLE'S REPUBLIC OF CHINA	Tel: +86 (10) 8778 6033 Fax: +86 (10) 8778 6820 Email: jipengfei@atmb.net.cn
HONG KONG, CHINA (Chair) Mr. PAK-WAI Chan	Assistant Director, Hong Kong Observatory, 134A Nathan Road, Tsim Sha Tsui, HONG KONG CHINA	Ph: +852 2926 8435 Fax: +852 2375 2645 Em: pwchan@hko.gov.hk
HONG KONG, CHINA Dr. Chi-Wai Jeffrey LEE	Scientific Officer, Hong Kong Observatory, 134A Nathan Road, Tsim Sha Tsui, HONG KONG CHINA	Ph: +852 2926 8642 Fax: +852 2375 2645 Em: jeffreylee@hko.gov.hk
INDIA Dr. R. SURESH (TBC)	Scientist 'F' & Deputy Director General of Meteorology (Central Aviation Meteorological Division), India Meteorological Department, Mausam Bhawan, New Delhi 11003 INDIA	Ph: +91 (11) 2461 5371 +91 (11) 2462 6015 +91 986 823 8212 Fax: +91 (11) 2461 5371 Em: suresh.imd@gmail.com r58.suresh@imd.gov.in
INDONESIA Mr. Zulkarnain (TBC)	Head of Sub-division for Public Weather Services Management, Meteorological Climatological and Geophysical Agency (BMKG), Jalan Angkasa 1 No.2 Kemayoran, Jakarta, 10720, INDONESIA	Tel: +62 (21) 6546318 Fax: +62 (21) 6546315 Email: zulkarnain@bmkg.go.id zulkarnain.bmg@gmail.com
JAPAN Ms. Naoko Komatsu Mr. Kazuki Yasui	Senior Scientific Officer, Office of Aviation Weather Forecasting Forecast Division, Forecast Department, Japan Meteorological Agency (JMA), 1-3-4 Otemachi, Chiyoda-ku, Tokyo 1008122	Tel: +81 3 3212 8341 (ex. 3524) Fax: +81 3 3212 8377 Email: k_yasui@met.kishou.go.jp
JAPAN Ms. Keiko Ito Mr. Tatsuya Yabe	Assistant Scientific Officer, Aeronautical Meteorology Division, Administration Department, Japan Meteorological Agency (JMA), 1-3-4 Otemachi, Chiyoda-ku Tokyo 1008122	Tel: +81 3 3212 8968 Fax: +81 3 3212 8968 Email: tatsuyabe@met.kishou.go.jp
MALAYSIA Mr. Mr. Muhammad Helmi bin Abdullah	Senior Director, National Meteorological Aviation Centre, Kuala Lumpur International Airport, 1 st Floor, Airport Management Centre, 64000 Sepang Selangor Darul Ehsan, MALAYSIA	Ph: +603 8787 2360 Fax: +603 8787 1019 Email: helmi@met.gov.my
MALDIVES Mr. Ali SHAREEF	Deputy Director General, Maldives Meteorological Service, Hulhule, 22000 MALDIVES	Ph: +960 332 6200 Fax: +960 334 1797, 332 0021 Em: shareef@meteorology.gov.mv ali.shareef@met.gov.mv
NEW ZEALAND Ms Paula ACETHORP Mr. Keith MACKERSY	Chief Meteorological Officer Senior Meteorological Specialist Civil Aviation Authority of New Zealand P.O. Box 3555, Wellington 6140 NEW ZEALAND	Ph: +64 4 830 2611 +64 (4) 560 9400 Fax: +64 (4) 569 2024 Em: paula.acethorp@caa.govt.nz
REPUBLIC OF KOREA Ms. Ka-Young Byen	Assistant Director, Aviation Meteorological Office (AMO) of Korea Meteorological Administration (KMA) 272 Gonghang-ro, Jung-gu, Incheon, REPUBLIC OF KOREA 22382	Tel: +82 (32) 740 2855 Fax: +82 (32) 740 2817 E-mail: bky2012@korea.kr

State or Org./Name	Title/Organization	Contact information
PHILIPPINES (TBC)	(TBC)	(TBC)
SINGAPORE Mr. Chow Kwok Wah	Principal Meteorologist, Meteorological Service of Singapore, National Environment Agency, P.O. Box 8, Singapore Changi Airport, Singapore 918141, SINGAPORE	Tel: +65 6542 4715 Fax: +65 6545 7192 Email: chow_kwok_wah@nea.gov.sg
THAILAND Ms Rassmee Damrongkietwattana	Director, Aeronautical Weather Monitoring Sub-Division, Aeronautical Meteorology Division, Thai Meteorological Department, 6 th Floor, ATC Complex Suvarnabhumi International Airport Bang Pli, Samut Prakarn, 10540 THAILAND	Ph: +66 (2) 1340011 Ext 213 Fax: +66 (2) 1340009 +66 (2) 1340010 Em: rassmee@hotmail.com
UNITED STATES Mr. Pat MURPHY	Federal Aviation Administration, Senior Meteorologist, Programme Lead International, FAA Headquarters, 800 Independence Ave, S.W., Washington, D.C. 20591 UNITED STATES	Tel: +1 (202) 267 2788 Email: michael.murphy@faa.gov
VIETNAM Ms. Lan Oanh Nguyen (Lana)	Deputy Director, Air Navigation Department, Civil Aviation Authority of Vietnam, 119 Nguyen Son street, Long Bien district, Hanoi, VIET NAM	Ph: Fax: Email: lanoanh@caa.gov.vn
ICAO (Secretariat) Mr. Peter DUNDA	Regional Officer Aeronautical Meteorology/Environment International Civil Aviation Organization 252/1 Vibhavadi Rangsit Road Chatuchak, THAILAND	Ph: +66 (2) 537-8189 Ext. 153 Fax: +66 (2) 537-8199 Email: pdunda@icao.int

2. DESCRIPTION	
Objective	Improve the quality of meteorological services, in particular, observations, forecasts, advisories and warnings – including facilitating implementation of the International Airways Volcano Watch (IAVW) and International Tropical Cyclone Watch (ITCW) – in support of the global air navigation plan framework and the aviation system block upgrade (ASBUs) methodology.
Benefits	Improve the safety and efficiency of flight and ground operations.
Terms of Reference Functions of the group	Under guidance from ICAO APAC MET Secretariat: Identify and evaluate current and future requirements with respect to meteorological services, in particular, observations, forecasts, advisories and warnings, in support of the aviation system block upgrades (ASBUs); a) Promote the implementation of meteorological services, in particular, observations, forecasts, advisories and warnings, in support of the aviation system block upgrades (ASBUs), System Wide Information Management (SWIM), MET support to Air Traffic Management, etc.; b) Promote the requirement for, and benefits of, QMS for MET services and competency of aeronautical meteorological personnel; c) Maintain awareness of, and identify new, meteorological deficiencies and formulate strategies to resolve these deficiencies; d) Continually seek ways to improve the quality, compliance against SARPs and operational effectiveness of the meteorological services; Monitor the implementation and use of products and services under the framework of the World Area Forecast System (WAFS), the International Airway Volcano Watch (IAVW) and the International Tropical Cyclone Watch (ITCW); e) Monitor the relevant activities of the MET Panel and appropriate bodies; f) Monitor the relevant activities of VOLCEX/SG; and g) Provide advice and report to the MET Sub-group on the above issues for further co-ordination through the ICAO Secretariat with other appropriate bodies.
Work Programme	The work to be addressed by the ASIA/PAC MET/S WG includes: <ul style="list-style-type: none"> Review procedures for the issuance of meteorological observations, forecasts, advisories and warnings in the region and propose actions for their improvement to related performance objectives; In conjunction with MET/IE WG, investigate the deficiencies in the format and dissemination of meteorological observations, forecasts, advisories and warnings and propose remediation plans; Respond to the needs of the guidance and/or training related to the implementation of meteorological observations, forecasts, advisories and warnings and inform MET/IE WG of changes required to the SIGMET guide; In conjunction with MET/R WG and in support of the ASBUs, provide meteorological input for operational planning for specific phenomenon including volcanic ash, radioactive cloud, tropical cyclone, tsunami and space weather; Follow the developments in the States related to the improvement of meteorological observations, forecasts, advisories and warnings and provide regional input on these matters to relevant ICAO and WMO groups and to gather user requirements from ANSPs, IATA, IFATCA and IFALPA; Investigate options for rectification of air navigation deficiencies in the field of meteorological services in APAC States; Provide support for the ICAO APAC volcanic ash exercises; Report on its work to the MET Sub-group of APANPIRG; and Maintain a link to the Regional ATM Contingency Plan through the ATM SG.

3. COMMUNICATION STRATEGIES				
Description	Target Audience	Delivery Method	Frequency/ Date	Responsibility

Interim Work Plan Programme Progress Report	MET/S WG Members	Email and web-conference Document via email and posted on ICAO Bangkok website; Webex	Quarterly/as determined by Chair As required but reviewed at least quarterly	Chair and Secretariat
Major Work Programme Progress Report	MET/S WG Members	Working Paper (MET/S WG meeting) Document via email and posted on ICAO Bangkok website; Webex	Annually/published 14-days or more before the meeting As required but reviewed at least quarterly	Chair and Secretariat
General correspondence	MET/S WG Members	Email	As required	MET/S WG Members
Working Group Meeting	MET/S WG Members	Meeting (in conjunction with MET/IE WG)	Yearly in March	Chair
Status & Milestone	ICAO Secretariat and MET/S WG Members	Email WP at MET/S WG	Quarterly	Chair
New, specific proposal for action (WP)	MET/S WG Meeting Members	Working Paper (MET/S WG meeting)	Annually/submitted 28-days or more before the meeting (published 14-days or more before the meeting)	MET/S WG Members or States
New, specific information (IP)	MET/S WG Meeting Members	Information Paper (MET/S WG meeting)	Annually/submitted 28-days or more before the meeting (published 14-days or more before the meeting)	MET/S WG Members or States
Working Group Meeting Report	MET/S WG Members and all APAC States MET/S WG and MET/IE WG	MET/S WG Meeting Report Working Paper	Annually/published 21-days or less after the meeting	Chair and Secretariat
Working Group Progress Report	MET SG Meeting	Working Paper (MET SG meeting)	Annually/submitted 28-days or more before the meeting (published 14-days or more before the meeting) Yearly	Chair and Secretariat

WORK PROGRAMME

4. TASKS ACTIVITIES				
Tasks Activity	Time Frame	Responsibility	Status	Milestone
Task Activity 1: Monitor and provide assistance to the regional implementation of meteorological observations, forecasts, warnings and advisories	2020-2021	MET/S WG	In progress	4
Task Activity 2: Track and investigate deficiencies in the format and dissemination of meteorological observations, forecasts, warnings and advisories and propose corrective action and provide information to ICAO and WMO groups for possible assistance	2020-2021	MET/S WG and MET/IE WG	In progress	1,2
Task Activity 3: Review WC, WV & WS SIGMET test results and implement improvements.	2020-2021	MET/S WG	In progress	4
Task Activity 4: Provide guidance and/or training related to the implementation of meteorological observations, forecasts, warnings and advisories, including input to the Regional SIGMET Guide as they relate to the Annex 3 amendment cycle and SIGMET tests.	2020-2021	R/O, MET/S WG and MET/IE WG	In progress	1,3
Task Activity 5: Provide input into regional-operational plans as required for specific phenomenon, including VA, radioactive cloud, TC, Tsunami and Space Weather, with consideration to global ICAO groups and WMO developments.	2020-2021	MET/S WG and MET/R WG	In progress	3
Task Activity 6: Investigate, and implement as appropriate, options to assist States in resolving air navigation deficiencies in the field of meteorological service.	2020-2021	MET/S WG	In progress	4
Task 7: Initiate amendment proposal for ANP concerning regional requirements for 30-hour TAF based on information provided by IATA.	2018	Secretariat, IATA	ON HOLD	5
Task Activity 9 7: Cost recovery – assist the PMC with	2020-2021	MET/S WG	To commence	

4. TASKS ACTIVITIES				
Tasks Activity	Time Frame	Responsibility	Status	Milestone
development of an effective cost recovery strategy for the Pacific SIDS.				
Activity 8: SIGMET coordination	2020-2021	MET/S WG	In progress	

5. MILESTONES OF MET/S WG			
Milestone	Accountability	Dates	Status
<i>Milestone 1: Report on SIGMET test results and regional performance to MET SG</i>	Chair	Annually	On track
<i>Milestone 2: Guidance and educational material available</i>	Chair	TBD	
<i>Milestone 3: MET input provided for ASIA/PAC Regional ATM Contingency Plans</i>	ad hoc group	Next meeting	Recommend that this be closed
<i>Milestone 4: Reduction in air navigation deficiencies in the field of meteorological service.</i>	States	TBD	
<i>(Old) Milestone 5: Conduct survey on the implementation and utilization of WAES and training needs within the ASIA/PAC Region and report to MET SG</i>	Chair	Every 2 years	Recommend that this be suspended
<i>Milestone 5: Amendment to APAC ANP Vol II (Table MET II 2) to reflect current requirements for provision of 30-hour validity TAF.</i>	States	2017	On hold

5.6. WORK PLAN				
Task Activity / Milestone	Accountability	Predecessors	Date	Status
Activity 3: Review SIGMET test results and implement improvements				
Task Activity 3.1: Review SIGMET tests (conjoint session with MET/IE WG)	Working Group MET/S WG	-	Annually Mar	
Task Activity 3.2: Develop action plan to fix identified deficiencies	Chair in conjunction with the Working Group MET/S WG	conjoint session with MET/IE WG 3.1	During meeting Annually Mar	
Task Activity 3.3: Report back to MET SG on regional performance and action plan	Chair	3.2	Annually May	
Activity 3.4: Advise States of SIGMET deficiencies	Secretariat	3.3	Annually Jun	
<i>Milestone 3: Report on SIGMET test results and regional performance to MET SG Improved issuance and compliance of SIGMETs</i>	Chair MET/S WG	3.4	Annually	
Activity 4: GUIDANCE AND EDUCATIONAL MATERIAL				
Task 2.1: e) Review SIGMET pamphlets with regard to Annex 3 Amendment 77	Australia, Hong Kong, China, Japan and New Zealand (Rapporteur) in conjunction with ICAO HQ and WMO	—	August 2016	Done
Task 2.2: Monitor international development of radioactive cloud SIGMET	China (Rapporteur), Hong Kong, China and Japan	—	TBD	Done
Task 2.3: Review the draft guidance of tsunami warning in line with Amendment 77 to Annex 3 and present the guidance to MET SG for endorsement	Australia, Japan (rapporteur) and Indonesia		June 2016	Done
Task 2.4: Review the regional SIGMET Guide to be in line with Amendment 77 to Annex 3 New (specific task): Prepare proposal to include	Australia (rapporteur), China, Hong Kong, China, Japan and New		2018	Done

5 6. WORK PLAN				
Task Activity / Milestone	Accountability	Predecessors	Date	Status
guidance on developing and using objective criteria supporting thunderstorm SIGMET issuance in the SIGMET Guide	Zealand, in conjunction with Secretariat			
Task Activity 4.1: Review the regional SIGMET Guide to be in line with Amendment 78 79 to Annex 3	Australia (rapporteur), Hong Kong China, Japan, New Zealand and Singapore, in conjunction with Secretariat		2020	
Activity 4.2: Review the regional SIGMET Guide to be in line with Amendment 81 to Annex 3	MET/S WG		2023	
Activity 4.3: Develop and implement a plan to educate MET service providers and aviation users on the new ICAO SWX provisions – based on SWXC coordination group (METP)	Secretary		2021	
Activity 4.4: Develop proposal to amend the ROBEX Handbook to facilitate the exchange of routine TAF for locations where States issue routine TAF every three hours instead of the recommended practice of every six hours [Report of MET/S WG/8, paragraph 3.5 refers].	Chair, Secretariat and State/s concerned		As advised by State/s concerned	
Activity 4.5: Develop proposal to amend ANP Volume III to clarify MET-related implementation planning guidance.	Chair, Secretariat		2021	
Milestone 4: Guidance and educational material available	Chair MET/S WG		TBD	
Activity 3: REGIONAL CONTINGENCY PLANS				
Activity 6 – SIGMET Air Navigation Deficiencies				
Task 4.1: Review options to eliminate SIGMET deficiencies	ad hoc group #1: Australia, China, Hong Kong China, Japan, Indonesia, and New Zealand (rapporteur)		Sep 2016	Done
Task 4.2: Monitor the provision of SIGMET services from States with SIGMET deficiencies	ad hoc group #2: Australia, Japan (rapporteur), Singapore and Thailand, in conjunction with MET/S WG chair and Secretariat	4.1	May 2016 and 2017	Done (July 2016) 2017 (to be coordinated with RODBs)
Task Activity 6.1: Assist the ICAO Secretariat in the facilitation of discussion of viable options with relevant States.	Paula and Secretariat ad hoc group #1	4.1	Ongoing	
Task Activity 6.2: Monitor the implementation of the solution/s to remove deficiencies.	MET/S WG ad hoc group #1	4.2	Ongoing	
Task Activity 6.3: Monitor global development on the establishment of a regional advisory system for hazardous weather information system.	MET/S WG ad hoc group #1		Ongoing	
Task Activity 6.4: Report progress to MET SG	Secretariat Rapporteur of ad hoc group #1	4.3	Ongoing	
Task 4.7: New task: Investigate options and provide examples for monitoring SIGMET implementation utilizing SIGMET coordination platforms	ad hoc group #1 Singapore		Ongoing	
Investigate metrics for monitoring SIGMET implementation, in coordination with RODBs, referring to practices in SIGMET coordination activities				
Milestone 6: Reduction in SIGMET air navigation deficiencies.	MET/S WG States		2021	

5 6. WORK PLAN				
Task Activity / Milestone	Accountability	Predecessors	Date	Status
Activity 5 – Proposal to amend APAC ANP Volume II, Table MET II-2				
Task 5.1: Provide a list of regional requirements for 30-hour TAF	IATA	MET/S-WG/7	Apr 2017	Done
Task 5.2: Draft a proposal to amend the ANP concerning regional requirements for 30-hour TAF based on information provided by IATA	Secretariat, IATA	5.1	Apr 2017	Done
Task 5.3: Ascertain whether the proposal has adequate support from the State/s affected	Secretariat	5.2	Apr 2017	Done
Task 5.4: Present outcomes of 5.1 to 5.3 for review by MET SG/24	Secretariat, IATA	5.3	May 2017	Done
Task 5.5: If supported, circulate the proposal to amend the ANP concerning regional requirements for 30-hour TAF	Secretariat	5.4	After May 2017	Done
Task: Develop proposal to amend the ROBEX Handbook to facilitate the exchange of routine TAF for locations where States issue routine TAF every three hours instead of the recommended practice of every six hours [Report of MET/S-WG/8, paragraph 3.5 refers].	Chair, Secretariat and State/s concerned		As advised by State/s concerned	
Task: Develop proposal to amend ANP Volume III to clarify MET-related implementation planning guidance.	Chair, Secretariat		2021	
Activity 7 – Cost recovery strategy				
Task Activity 7: Cost recovery – assist the PMC with development of an effective cost recovery strategy for the Pacific SIDS.	Tonga, Secretariat		2021	
Deliverable Activity 8 – SIGMET coordination activities in APAC Region Coordinate on the next steps to promote integration and expansion of SIGMET coordination activities among States/Administrations.				
Activity 8.1 Consolidated progress report on SIGMET coordination activities in the APAC Region and recommendations based on lessons learnt: - new and existing SIGMET coordination activities - WP (MET/R WG) and SP (MET/ATM Seminar) MET/IE WG and MET/S WG - key lessons learnt/recommendations for regional guidance on SIGMET coordination - identify opportunities for integration and expansion of SIGMET coordination activities	Ad-hoc group: Japan, Singapore, Hong Kong China, (Joint Rapporteurs) China, Indonesia, Malaysia, India, Viet Nam, Thailand, Fiji and IFALPA, coordinated by the Chairperson and Secretary	Next meeting of MET/R WG and MET/ATM Seminar	MET/S WG	
